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ABSTRACT

The Achievement Based Curriculum (ABC) is a process for training teachers how to plan, assess, prescribe, teach, and evaluate instruction for all children. Project I CAN is a research database designed and organized to be used by physical educators and classroom teachers. The materials cover the scope (preprimary through secondary) and essential content typically taught in physical education programs. I CAN materials were designed to accommodate students functioning at a wide range of skill levels. Data presented in this report demonstrate the effectiveness with which I CAN-ABC has been implemented in school districts during 1985-88. Teacher performance data are reported and evaluated relative to the criteria used by the Joint Dissemination and Review Panel (JDRP). Student performance data were also collected and evaluated using the JDRP criteria. I CAN-ABC, when implemented as intended will result in at least 75 percent of students in mainstreamed and special physical education classrooms will demonstrate educationally significant improvement on at least 75 percent of the performance objectives targeted for instruction. (JD)

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# Title: Project I CAN- Achievement Based Curriculum (ABC) Evaluation Report: Teacher and Student Performance Data

Submitted to ERIC Clearinghouse on Teacher Education

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ABSTRACT

PROJECT I CAN: ACHIEVEMENT BASED CURRICULUM (ABC)
EVALUATION REPORT
TEACHER AND STUDENT PERFORMANCE DATA 1985-88

Project I CAN: ABC is a process model and resource data-base designed to improve both teaching and quality of physical education instruction provided to all children. There are two components to the program. The ABC is a process for training teachers how to plan, assess, prescribe, teach and evaluate instruction for all children. I CAN is a resource data-base designed and organized to be used by physical educators and classroom teachers. The materials cover the scope (preprimary through secondary) and essential content typically taught in physical education programs. A unique feature is that the I CAN materials were designed to accommodate students functioning at a wide range of levels (near zero to functional competency). Data presented in this report demonstrates the effectiveness with which I CAN: ABC has been implemented in school districts across the country during 1985-88. Teacher performance data generated from workshops and implementation programs are reported and evaluated relative to the criteria used by the Joint Dissemination and Review Panel (JDRP) when I CAN: ABC was validated as an exemplary program. That at least 75 percent of teachers receiving I CAN: ABC inservice training will achieve implementation mastery. Student performance data were also collected and evaluated using the JDRP criteria. That I CAN: ABC, when implemented as intended, will result in at least 75 percent of students in mainstreamed and special physical education classrooms demonstrating educationally significant improvement on at least 75 percent of the performance objectives targeted for instruction. Data reported demonstrates that the JDRP criteria were met for each of the years included in this report. These data suggest that I CAN: ABC continues to be a viable option for teachers responsible for providing quality physical education instructional programs.

**Title: Project I CAN- Achievement Based Curriculum (ABC) Evaluation Report: Teacher and Student Performance Data**


| Content | Pages |
|---|---|
| Background Information | 1 |
| Project Purpose | 2 |
| Claims of Effectiveness | 2 |
| Inservice Training Model | 2 |
| Teacher Performance Data | 4 |
| Student Performance Data | 6 |
| Summary | 11 |
| Selected References | 12 |

**Title: Project I CAN- Achievement Based Curriculum (ABC) Evaluation Report: Teacher and Student Performance Data**

This summary report presents teacher and student performance data generated through dissemination of Project I CAN: Achievement Based Curriculum (ABC) during 1985-88. Content of this report includes backgound information about I CAN: ABC, project, purpose, claims of effectiveness, I CAN: ABC, Project model and teacher and student performance data for 1985-88.

**Background Information**

Project Title: I CAN: Achievement Based Curriculum (ABC)

Contact Persaon: Luke E. Kelly, Ph.D., Project Director
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Developed with USOE-OSE funding 1971-78 and Michigan Department of Education funds in 1978.

Coordinator: Bernard V. Holland, Ph.D.
1984-86 Michigan State University
East Lansing, MI
1986-88 Arizona State Unversity
Tempe, AZ

Project Years: Developed: I CAN Primary 1971-1976
I CAn Secondary 1975-1978;
Operated: ABC Model field tested and training process developed 1978-1981.
Evaluation: Evaluated and approved by the Michigan Department of Education in 1979, and by Joint Dissemination and Review Panel in 1981 and 1985.
Dissemination: Funded through National Diffusion Network from 1984-1991.

## Project Purpose

The project purpose is to systematically disseminate the I CAN: ABC Model, through quality school adoptions, to impove the level of instruction in fundamental motor, health fitness and sport-leisure skills provided to all students (handicapped and nonhandicapped) in regular and special physical education settings. Project I CAN-ABC provides inservice training for physical education and special education teachers, and other as needed, and promotes:

- the development of a unified physical education curriculum for schools that accomodates all students:
- assessment based curriculum and evaluation methods that can be adapted to individual school needs and managed by computers;
- the development of fundamental motor, health fitness and sport-leisure skills;
- individualization of instruction adapted to student and class needs; and
- curriculum based performance accountability for schools.

## Claims of Effectiveness

I CAN- ABC has been reviewed and approved as an exemplary program by the State of Michigan Adoption Program (1979) and by the Joint Dissemination and Review Panel (now Program Effectiveness Panel) in 1981 and again in 1985. Claims of effectiveness upon which these reviews were based were:

- At least 75 percent of both physical education specialists and/or classroom teachers of handicapped students reveiving I CAN-ABC inservice training wi8ll achieve implementation mastery.
- I CAN-ABC, when implemented as intended (implementation mastery), will result in at least 75 percent of students in mainstreamed and special physical education classrooms demonstrating educationally meaningful improvement on at least 75 percent of the performance objectives targeted for instruction.

## Inservice Training Model

The I CAN-ABC Inservice Training Program is designed to train classroom teachers (regular and special education) and regular physical educators responsible for addressing the physical and motor needs of handicapped children. Teachers are trained in steps needed to design, implement and evaluate individualized, assessment based physical education programs using the nationally validated I CAN-ABC Model (Wessel & Vogel, 1981; Wessel & Holland, 1985). The I CAN-ABC Inservice Training Model is 2-4-1. Two days of intensive training, four days of implementation follow-up

activities and a one day planning workshop. Essential content covered and evaluation competencies established as evidence of mastery are outlined below. 3

## I CAN - ABC TRAINING MODEL

| Training Content | Evaluation Competencies |
|---|---|
| **Two Day Workshop**<br>**Focus: Skills, Knowledge, Attitudes** | |
| - Assessing student performance | - Attain 80% or more of the items on I CAN-ABC Cognitive Skills Test |
| - Prescribing instructional activities | |
| - Teaching an individualized program | |
| - Evaluating student change and program effectiveness | |
| - Develop a training schedule for school/class | - Training schedule developed |
| - Workshop content and staff evaluation | - Content and staff attain an average rating of at least 4 (scale 1-5) |
| **Four Day Implementation**<br>**Focus: On-site Skills Application** | |
| Teaching personnel implement CAN-ABC Model in school setting. Four monitoring/ support visits focus on teachers assessing, prescribing, teaching, and evaluating using I CAN-ABC Model. | - Teachers attain 75% or more of I items on I CAN-ABC monitor forms (assessing,prescribing, teaching, evaluating).<br>- Recording student performance data |
| **One Day Planning Workshop**<br>**Focus: On-site Skills Application** | |
| Teaching personnel, administrators and others as appropriate evaluate the program, plan for future implementation and plan a comprehensive physical program. | - Develop long term (semester, yearly, multi-year) implementation plan.<br>- Student performance data (ongoing): 75% students demonstrate meaningful gain on 75% of education objectives targeted for instruction. |

The 2-4-1 model has been modified to address the needs of individual districts and educational institutions. The essential content and mastery competencies have remained the same, but the format and strategies have been adjusted to meet a variety of needs and settings. Examples of adaptations include:

- In large school districts local teachers and adminstrators are trained to mastery in the I CAN- ABC Model, and receive additional training to become certified to train others. These individuals then become the trainers for other teachers in the district. This training can involve the 2-4-1 format, or may be conducted over a series of inservice activities (e.g., one afternoon each month).
- I CAN-ABC Certified Trainer conducts the two and one day training workshops. Local school district personnel receive additional training and are responsible for monitoring teachers as they implement I CAN-ABC in a classroom setting. These individuals will ultimately be responsible for training other teachers in the district.
- Training in I CAN-ABC model can be offered through a university/college for credit towards continuing education certification or towards a degree program. Courses may be taught through a weekly format, or using another schedule organized between the trainer and trainees.

These and other formats are possible because of the development of I CAN-ABC Professional Training Materials (Wessel, Holland & Kelly, 1989). These materials guide I CAN-ABC trainers and monitoring coordinators through the essential content needed for successful implementation of I CAN-ABC in a school setting. Advantages of adapting the implementation format is that it enables local needs to be more appropriately met, results in greater local training personnel expertise and is usually more cost effective for the local school district (Wessel, Holland, & Kelly, 1989).

**Teacher Performance Data**

Representative teacher performance data collected during 1985-1988 are presented in Tables 1 and 2 (Wessel, Holland, & Burkett, 1988). Data were collected from special eduation and physical education teachers attending two-day inservice training workshops, and from teachers who implemented I CAN-ABC in their physical education programs. Workshop and implementation data were collected in the following states: Arizona, California, Maine, Michigan, New Mexico, Oregon, Rhode Island, South Dakota, Tennessee, Virginia, and Washington.

Table 1 Teacher Performance Two-Day Workshop Data, 1985-88

| School Year | n= | Cognitive Skills | | Workshop Evaluation | |
|---|---|---|---|---|---|
| | | Ave. Score | % Mastery | Content | Staff |
| 1985-86 | 43 | 82.4 | 93 | 4.32 | 4.61 |
| 1986-87 | 62 | 87.9 | 89 | 4.30 | 4.74 |
| 1987-88 | 103 | 89.6 | 90 | 4.42 | 4.69 |
| Total | 208 | 87.6 | 90 | 4.36 | 4.69 |

Table 2 Teacher Performance Four Day Implementation Data, 1985-88

| | | I CAN: ABC Implementation Component | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| School Year | n= | Assess | | Prescribe | | Teach | | Evaluate | |
| | | Ave* | Mast** | Ave | Mast | Ave | Mast | Ave | Mast |
| 1985-86 | 38 | 89.7 | 100 | 95.5 | 100 | 94.7 | 100 | 82.2 | 79 |
| 1986-87 | 38 | 84.8 | 86 | 91.6 | 93 | 93.6 | 100 | 85.3 | 82 |
| 1987-88 | 52 | 89.9 | 90 | 93.5 | 96 | 95.2 | 100 | 87.5 | 87 |
| Total | 128 | 88.3 | 92 | 93.5 | 96 | 94.6 | 100 | 85.3 | 83 |

*Ave: Average score atained by teachers

**Mast: Percent of teachers who attained a score of at least 75 percent for the implementation component

For purposes of examining teacher performance data relative to project claims of effectiveness (presented earlier) this report does not differentiate between teacher type (regular versus special education teacher). Previous research has reported that when trained in the I CAN-ABC Model there were no differences between teacher type in terms of implementation mastery as a result of training (Wessel & Vogel, 1981; Wessel, 1981).

Data comparing the effectiveness of teachers trained in I CAN-ABC Model and teachers not trained are not available for the 1985-88 time period. The project was funded to disseminate the I CAN-ABC Model and not to make such comparisons. Previous research, however, demonstrated that

teachers trained to mastery in I CAN-ABC model achieved ssignificantly higher implementation mastery scores than teachers not trained in I CAN-ABC Model (Wessel & Vogel, 1981; Wessel & Holland, 1985).

Data in Table 1 reports the effectiveness of I CAN-ABC two day training workshops. The cognitive skills test measures the participants mastery of essential content related to assessing, prescribing, teaching and evaluating using the I CAN-ABC model. The average cognitive skills test scores for each of the three school years presented were above the 80 percent mastery criteria. The percent of teachers who attained this level of mastery each year exceeded the 75 percent criteria. The content of the materials presented at the workshops and quality of I CAN-ABC trainers were evaluated at the conclusion of each workshop by workshop participants. Both aspects of training exceeded the criteria of four (scale one to five) during each of the three years.

Reported in Table 2 are data pertaining to the effectiveness of teachers implementing I CAN-ABC Model in their physical education classes. Teachers were monitored by I CAN-ABC certified trainers or in-district personnel as the model components of assessing, prescribing, teaching, and evaluating were implemented. In-district personnel received training in the monitoring procedures and followed guidelines outlined in the Leadership Training Guide: Monitoring Handbook- Implementing and Evaluating the ABC Program Plan (Wessel, Holland, & Kelly, 1989). Teachers were expected to implement at least 75 percent of the items on the I CAN-ABC implementation monitoring forms (assess, prescribe, teach, and evaluate). The average score attained for each of the four components exceeded this criteria during each year of implementation. At least 75 percent of teachers implementing I CAN-ABC attained this mastery criteria during each year of the project.

**Student Performance Data**

Representative student performance data were collected from I CAN-ABC implementation adoption sites during 1985-88. Data were collected from large city, urban and rural school districts. States where data were collected included Arizona, California, Maine, Michigan, New Mexico, Oregon, Rhode Island, South Dakota, Tennessee, Virginia, and Washington. Data were only available for students in classes where I CAN-ABC was implemented by teachers trained in the process model. Previous data has reported significant differences in performance between students in classes taught by teachers trained in the I CAN-ABC Model and students in classes taught by teachers not trained in the I CAN-ABC Model. Differences were in favor of students in I CAN-ABC Model classes (Wessel & Vogel 1981; Wessel & Holland, 1985).

Student data presented are on objectives, from the I CAN resource materials, selected by teachers as those most important for their students to master depending on current skill levels and future needs. Each I CAN objective was validated during the developmental phase of the I CAN resource materials (Wessel, 1975; Wessel, 1979 a and 1979b). Reliability data demonstrated that students could be reliably measured by teachers trained in the I CAN-ABC Model (Wessel & Vogel 1981; Wessel & Holland, 1985). A major component of the I CAN-ABC inservice training model focuses on assessment of student performance using the I CAN objectives.

Objectives selected by teachers implementing I CAN-ABC during the current reporting period ranged from basic movement and object control skills (e.g., running, throwing, log roll) to life-time leisure and recreational skills (e.g., bowling, volleyball, swimming). Therefore, student data reported are on skills educationally meaningful and important to the learner and not on skills imposed upon the teacher and student by pre-determined curriculum (Wessel, 1976a and1976b; Wessel, 1979c; Wessel and Holland, 1989).

Table 3 presents demographic data pertaining to number of schools, classrooms, administrators, teachers and students impacted by I CAN-ABC during 1985-88 as reported to the National Diffusion Network (NDN). A majority of the students were classified as mildly or moderately handicapped, with some students classified as severely handicapped. Some data were also reported on nonhandicapped and handicapped students participating in mainstreamed physical education classes. The actual number of students impacted, directly or indirectly, could be considerably higher. For example, for purposes of reporting to NDN a teacher may indicate intent to implement I CAN-ABC in one class of 20 students. Following this implementation the teacher could expand her use of I CAN-ABC into other classes. Because of difficulties maintaining ongoing contact with all teachers using I CAN-ABC, classes into which a teacher expands the use of I CAN-ABC often go unreported.

Table 3 Project I CAN: ABC Adoption Data
National Diffusion Network, 1985-88

| | Adoption Year | | | |
|---|---|---|---|---|
| | 1985-86 | 1986-87 | 1987-88 | Total |
| # schools | 73 | 108 | 110 | 291 |
| # classrooms | 167 | 338 | 296 | 801 |
| # administrators trained | 7 | 9 | 7 | 23 |
| # teachers trained | 113 | 151 | 201 | 465 |
| # students | 1168 | 4986 | 3001 | 9155 |

Representative student performance data from classes implementing I CAN-ABC during 1985-86, 1986-87 and 1987-88 funding years are reproted in Tables 4, 5, and 6. Note the dates for each year (October 1 - September 30) do not coincide with the actual school year. This is because the NDN funding year was October 1- September 30 and are the dates that had to be used for purposes of data collection. Actual number of school days would be the same as if "normal" school year dates were used.

Data presented in Tables 4, 5, and 6 should be evaluated relative to criteria used when I CAN-ABC was validated by JDRP as an exemplary physical education program. The criteria was that at least 75 percent of students in I CAN-ABC classes achieve mastery (meaningful gain) on the objectives taught. Mastery learning or meaningful gain was set at attainment of one focal point on each objective taught. For purposes of interpreting data in Tables 4, 5, and 6 an example is provided. Teacher 1 in Table 4 reported data on five different objectives for a class of ten students. The average focal point gain was 2.2 focal points per student per objective. The percent mastery was 98. Therefore, out of 50 opportunities for mastery (10 students x 5 objectives), or a gain of 1 focal point, mastery was attained 49 times (49/50 = 98%). Scanning the data in Tables 4, 5, and 6 it is apparent that in most classrooms for which data are reported, the average focal point gain was well above an average of one and the percent of students attaining this gain was above the 75 percent criteria.

Table 4 Student Performance Data from Representative I CAN: ABC Adoption Sites
October 1, 1985 - September 30, 1986

| Teacher | Number of Students | Number of Objectives | Ave. Focal Point Gain | Percent Mastery |
|---|---|---|---|---|
| 1 | 10 | 5 | 2.2 | 98 |
| 2 | 8 | 3 | 2.9 | 100 |
| 3 | 8 | 3 | 1.4 | 56 |
| 4 | 4 | 2 | 1.8 | 100 |
| 5 | 17 | 8 | 1.3 | 88 |
| 6 | 7 | 3 | 5.6 | 91 |
| 7 | 9 | 3 | 1.6 | 95 |
| 8 | 6 | 3 | 2.7 | 100 |
| 9 | 5 | 4 | 2.3 | 100 |
| 10 | 14 | 3 | 2.4 | 76 |
| 11 | 14 | 9 | 2.0 | 90 |
| 12 | 8 | 1 | 0.6 | 63 |
| 13 | 5 | 3 | 5.3 | 93 |
| 14 | 11 | 4 | 1.3 | 80 |
| 15 | 9 | 4 | 2.7 | 86 |
| 16 | 8 | 3 | 1.7 | 90 |
| 17 | 7 | 5 | 3.5 | 86 |
| 18 | 11 | 2 | 1.9 | 78 |
| 19 | 10 | 1 | 1.5 | 100 |
| 20 | 8 | 2 | 4.2 | 100 |
| 21 | 9 | 1 | 1.3 | 89 |
| 22 | 9 | 2 | 2.1 | 86 |
| 23 | 11 | 2 | 3.8 | 100 |

Table 5

Student Performance Data from Representative
I CAN: ABC Adoption Sites
October 1, 1986 - September 30, 1987

| Teacher | Number of Students | Number of Objectives | Ave. Focal Point Gain | Percent Mastery |
|---|---|---|---|---|
| 1 | 3 | 4 | 1.87 | 84 |
| 2 | 16 | 2 | 2.48 | 90 |
| 3 | 2 | 3 | 5.67 | 100 |
| 4 | 12 | 2 | 1.77 | 88 |
| 5 | 7 | 2 | 2.36 | 100 |
| 6 | 15 | 2 | .93 | 70 |
| 7 | 3 | 1 | 4.33 | 100 |
| 8 | 5 | 2 | 4.80 | 90 |
| 9 | 9 | 1 | 5.78 | 100 |
| 10 | 5 | 3 | 1.72 | 79 |
| 11 | 6 | 7 | 1.98 | 100 |
| 12 | 7 | 5 | 2.06 | 100 |
| 13 | 9 | 5 | 2.02 | 98 |
| 14 | 7 | 5 | 2.32 | 97 |
| 15 | 8 | 5 | 2.58 | 97 |
| 16 | 5 | 7 | 2.23 | 100 |
| 17 | 23 | 1 | 3.70 | 96 |
| 18 | 14 | 1 | 2.90 | 100 |
| 19 | 18 | 1 | 3.70 | 100 |
| 20 | 27 | 1 | 1.22 | 67 |
| 21 | 11 | 3 | 3.31 | 95 |
| 22 | 11 | 2 | 2.92 | 96 |
| 23 | 4 | 1 | 4.75 | 100 |
| 24 | 6 | 5 | 2.62 | 84 |
| 25 | 6 | 3 | 3.69 | 96 |
| 26 | 5 | 2 | .85 | 75 |
| 27 | 8 | 2 | 1.82 | 88 |
| 28 | 13 | 1 | 2.16 | 85 |
| 29 | 10 | 2 | 4.55 | 96 |
| 30 | 9 | 2 | 1.15 | 50 |
| 31 | 9 | 2 | 1.15 | 89 |
| 32 | 13 | 2 | 1.50 | 93 |
| 33 | 17 | 2 | 2.15 | 91 |
| 34 | 5 | 2 | 1.90 | 60 |

Table 6

Student Performance Data from Representative
I CAN: ABC Adoption Sites
October 1, 1987 - September 30, 1988

| Teacher | Number of Students | Number of Objectives | Ave. Focal Point Gain | Percent Mastery |
|---|---|---|---|---|
| 1 | 6 | 7 | 1.19 | 68 |
| 2 | 7 | 9 | 1.88 | 81 |
| 3 | 7 | 7 | 3.35 | 100 |
| 4 | 31 | 7 | 2.02 | 89 |
| 5 | 8 | 8 | 2.18 | 74 |
| 6 | 2 | 2 | 3.50 | 100 |
| 7 | 2 | 1 | 1.00 | 50 |
| 8 | 1 | 9 | 2.11 | 100 |
| 9 | 2 | 2 | .60 | 60 |
| 10 | 5 | 3 | 2.20 | 80 |
| 11 | 2 | 2 | 2.63 | 100 |
| 12 | 3 | 2 | 1.84 | 84 |
| 13 | 6 | 8 | 2.71 | 96 |
| 14 | 7 | 1 | 2.29 | 100 |
| 15 | 35 | 1 | 2.14 | 80 |
| 16 | 9 | 3 | 1.54 | 92 |
| 17 | 20 | 3 | 1.20 | 67 |
| 18 | 14 | 1 | 2.50 | 100 |
| 19 | 8 | 1 | 3.75 | 88 |
| 20 | 12 | 1 | 1.50 | 67 |
| 21 | 10 | 1 | 3.30 | 100 |
| 22 | 13 | 5 | 2.04 | 95 |
| 23 | 5 | 3 | 3.00 | 100 |
| 24 | 5 | 1 | 3.40 | 100 |
| 25 | 4 | 2 | 1.75 | 88 |
| 26 | 6 | 1 | 2.33 | 100 |
| 27 | 12 | 2 | 3.38 | 96 |
| 28 | 2 | 2 | 5.00 | 100 |
| 29 | 10 | 7 | 2.41 | 86 |
| 30 | 5 | 1 | 5.20 | 80 |
| 31 | 16 | 1 | 2.00 | 88 |
| 32 | 33 | 3 | 1.57 | 62 |
| 33 | 13 | 5 | 1.95 | 77 |
| 34 | 10 | 7 | 1.07 | 76 |
| 35 | 7 | 5 | 1.14 | 81 |
| 36 | 9 | 3 | 1.21 | 71 |
| 37 | 12 | 5 | 1.56 | 85 |
| 38 | 15 | 2 | .93 | 60 |
| 39 | 31 | 8 | 1.98 | 79 |
| 40 | 10 | 7 | 1.46 | 79 |
| 41 | 7 | 1 | 2.70 | 100 |
| 42 | 12 | 3 | 1.97 | 82 |
| 43 | 5 | 5 | 1.76 | 88 |
| 44 | 9 | 2 | 1.74 | 90 |
| 45 | 9 | 4 | 2.50 | 92 |
| 46 | 4 | 8 | 2.71 | 100 |
| 47 | 10 | 7 | 2.41 | 99 |
| 48 | 7 | 8 | 2.57 | 100 |
| 49 | 12 | 7 | 1.93 | 98 |
| 50 | 5 | 7 | 2.32 | 89 |
| 51 | 8 | 7 | 2.28 | 100 |
| 52 | 4 | 6 | 2.71 | 100 |
| 53 | 2 | 4 | 1.63 | 100 |

Table 7 presents summary descriptive data concerning class size, number of objectives taught and mean focal point gain and mastery scores. For example, in 1985-86 the range in class size was from 5 to 17 students, with a mean class size of just over 9 students. The number of objectives on which data were reported ranged from 1 to 9, with an average of 3.30 objectives per class. Range in focal point gain was .60 to 5.60, with an overall mean of 2.21 focal points. The range in percent mastery, by class, was 56 to 100 percent, with an overall mean of 88 percent. The overall mean scores for percent mastery are well above the criteria used by JDRP when I CAN-ABC received validation. The criteria was 75 percent mastery for students in I CAN-ABC classes on objectives taught.

Table 7 Summary Student Performance Data
I CAN: ABC Adoption Sites
October 1, 1985 - September 30, 1988

| Project Year | Number of Teachers | Students | Objectives | Focal Pt. Gain | Percent Mastery |
|---|---|---|---|---|---|
| 1985-86 | 23 | n=208<br>r=5-17<br>m=9.04 | n=76<br>r=1-9<br>m=3.30 | r=.60-5.60<br>m=2.21 | r=56-100<br>m=88 |
| 1986-87 | 34 | n=328<br>r=2-27<br>m=9.65 | n=91<br>r=1-7<br>m=2.68 | r=.85-5.78<br>m=2.09 | r=50-100<br>m=79 |
| 1987-88 | 53 | n=509<br>r=1-35<br>m=9.60 | n=218<br>r=1-9<br>m=4.11 | r=.60-5.20<br>m=2.04 | r=50-100<br>m=85 |

n = number of
r = range of values
m = average value

## Summary

Based on the data presented in this report criteria used by JDRP to validate I CAN-ABC in 1981 and again in 1985 were met during the 1985-88 implementation period. Teachers continue to develop implementation mastery of I CAN-ABC. Students in their classes demonstrated educationally meaningful gains on objectives individually selected for students based on their current and future needs in the development of fundamental movement and life time leisure and reacreational skills. I CAN-ABC continues to remain a viable program development option for physical education and special education teachers responsible for providing quality instruction in physical education.

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